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Da cooperação entre Max-Planck-Institut für Limnologie, Arbeitsgruppe Tropenökologie, Plön, Alemanha Oc., e Instituto Nacional de Pesquisas da Amazônia, Manaus – Amazonas, Brasil

A catalogue of type specimens of Crustacea in the Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil, up to January, 1988

by

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Abstract

Data and pertinent information on the type specimens of 45 species of crustaceans deposited in the Crustacea Section of the Systematic Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia (Manaus, AM) are presented. The names of museums and institutions where paratypes of some of these species were deposited are indicated, along with their respective registration numbers, when possible. The misspelling of the name of some localities cited by KENSLEY & WALKER (1982) is corrected. A list of references containing all the papers in which the taxa are first described is furnished. The paratype of *Parastenocaris bolbodes* KIEFER could not be located. The type of *Prosekia tarumae* CASTRO, though cited as being deposited in INPA's collection, has not arrived at the Institute at the time of the conclusion of this manuscript.

Keywords: Amazon region, systematic, Crustacea, type collection, catalogue.

Resumo

São apresentados dados e informações sobre os exemplares-tipos de 45 espécies de crustáceos depositados na Seção Crustacea da Coleção Sistemática de Invertebrados do Instituto Nacional de Pesquisas da Amazônia (Manaus, AM). São informados os nomes de museus e instituições onde parátipos de algumas destas espécies estão depositadas, acompanhados dos seus respectivos números de registro, quando possível. É corrigida a grafia errônea dos nomes de algumas localidades citadas por KENSLEY & WALKER (1982). É fornecida uma lista de referências que inclui todos os trabalhos nos quais os táxons estão originalmente descritos. O parátipo de *Parastenocaris bolbodes* KIEFER não pôde ser localizado. O holótipo e parátipos de *Prosekia tarumae* CASTRO, embora citado como tendo sido depositado no INPA, não haviam chegado ao Instituto até o momento da redação final deste trabalho.

Introduction

In October, 1976 the Instituto Nacional de Pesquisas da Amazônia formally set up a collection of insects, which was named Systematic Entomology Collections (RATCLIFFE & PENNY 1978a). A first catalogue of type specimens was soon published (RATCLIFFE & PENNY 1978b). In addition to the insect types, this catalogue also included a few type specimens of Platyhelminthes, Rotifera and other Arthropoda such as Arachnida and Crustacea. A later catalogue, published in 1983 (RAFAEL et al. 1983), included a significantly increased number of types specimens, and since then this number has again increased, comprising many invertebrate groups. Because of this, the collection's name has changed to Systematic Invertebrate Collection.

Crustaceans were, at first, poorly represented in INPA's collection. RATCLIFFE & PENNY (1978b) listed eight species and RAFAEL et al. (1983) listed fourteen. Since 1983, however, several new contributions have been made to the collection, most of them resulting from the efforts of INPA's scientists, particularly those working on the biology and systematics of parasitic and free-living Copepoda, Branchiura and Decapoda. Many lots of non-type material have been deposited by researchers from foreign institutions working in co-operation with INPA, particularly the scientific staff and collaborators of the "Max-Planck-Institut für Limnologie, Arbeitsgruppe Tropenökologie" (Plön, West Germany) and the "Office de la Recherche Scientifique et Technique Outre-Mer" (France). Several lots of specimens have come as an exchange with the following museums and institutions: "Museu de Zoologia da Universidade de São Paulo" (São Paulo, Brazil), "Universidade Federal do Rio Grande do Sul — Departamento de Zoologia" (Porto Alegre, Brazil), "Museu de Biologia, Universidad Central de Venezuela" (Caracas, Venezuela), "Forschungsinstitut Senckenberg" (Frankfurt a. M., West Germany) and "Rijksmuseum van Natuurlijke Historie" (Leiden, The Netherlands).

As a consequence of recent descriptions of several new taxa (and designation of type specimens) and the increasing crustacean material being collected in various areas of the Amazon Region, we decided that it was time to organize the crustaceans in a separate section, part of the main invertebrate collection of the Instituto Nacional de Pesquisas da Amazônia. All the material (type and non-type) deposited in the crustacean section is registered in an entry book, following a separate numeration system. The registration numbers are prefaced by the letters INPA-CR, the acronym for "Coleção Sistemática de Invertebrados do Instituto Nacional de Pesquisas da Amazônia; Seção Crustacea". Furthermore, the type-specimens, though following the same numeration as the section, are maintained in a separate, Type Collection. Each species represented in this type collection has a special file card which indicates its systematic position, all the data on the label, a reference to the paper in which it was firstly described and other pertinent information.

The purpose of this paper is to inform the scientific community about the setting up of INPA's crustacean collection by publishing a catalogue of the types deposited in it, up to January, 1988. For classes and orders, the classification of BOWMAN & ABELE (1982) is followed; families, genera and species are arranged alphabetically within each order. Under Remarks, paratype material that has been donated to or deposited in other museums and institutions is indicated, and any additional information which may be useful to future workers is furnished.

Unless otherwise stated, all the material is in good condition. Where it is not indicated, the specimens are stored in glass jars in 70 per cent (v/v) ethanol. The following abbreviations are used in the text: BMNH = British Museum (Natural History), London; HWML = University of Nebraska State Museum, Division of Parasitology, Harold W. Manter Laboratory, Lincoln; MZUSP = Museu de Zoologia da Universidade de São Paulo; NMCC = National Museum of Natural History, National Museums of Canada, Ottawa; SMF = Forschungsinstitut Senckenberg, Frankfurt a. M.; USNM = National Museum of Natural History, Smithsonian Institution, Washington, D. C.

List of type specimens

Class Branchiopoda
Subclass Diplostraca
Order Cladocera
Family Bosminidae

Bosminopsis negrensis BRANDORFF, 1976: 109, figs. 1 - 3, 5 - 6

Lectotype, female, on slide, INPA-CR 031. Locality: Amazonas, lower rio Negro.

Remarks: Lectotype was designated by HARDY et al. (1984). Besides the female lectotype, collected by H. Sioli in the lower rio Negro, on 24.IX.1959, the INPA's collection has one slide (INPA-CR 032) with an ephippium of *B. negrensis* collected in the rio Tarumã on 04.VI.1975.

Family Macrothricidae

Echinisca mira SMIRNOV, 1982. In: BRANDORFF, KOSTE & SMIRNOV 1982: 101, figs. 95 - 99

Paratype, female, on slide, INPA-CR 008. Locality: Pará, lower rio Nhamundá, near village of Terra Santa.

Remarks: The holotype is deposited in the Zoological Museum of the Moscow University (Moscow, USSR). Paratypes are also deposited in the Max-Planck-Institute for Limnology (Plön, West Germany) and the Zoological Institute of the USSR Academy of Sciences (Leningrad, USSR). In the original description, the number 3039 (p. 101) does not correspond to INPA's crustacean collection number.

Echinisca stollii SMIRNOV, 1982. In: BRANDORFF, KOSTE & SMIRNOV 1982: 95, figs. 74 - 79

Paratype, female, on slide, in poor condition, INPA-CR 009. Locality: Pará, lower rio Nhamundá, near village of Terra Santa.

Remarks: The holotype is deposited in the Zoological Museum of the Moscow University. A paratype is also deposited in the Max-Planck-Institute for Limnology. In the original description, the number 575 (p. 95) does not correspond to INPA's crustacean collection number.

Echinisca superaculeata SMIRNOV, 1982. In: BRANDORFF, KOSTE & SMIRNOV 1982: 96, figs. 81 - 92

Paratype, female, on slide, in poor condition, INPA-CR 010. Locality: Pará, lower rio Nhamundá, near village of Terra Santa.

Remarks: The holotype is deposited in the Zoological Museum of the Moscow University. Paratypes are also deposited in the Max-Planck-Institute for Limnology, and the Zoological Institute of the USSR Academy of Sciences. In the original description, the number 3035 (p. 96) does not correspond to INPA's crustacean collection number.

Class Maxillopoda
Subclass Copepoda
Order Calanoida
Family Diaptomidae

Argyrodiaptomus robertsonae DUSSART, 1985: 277, pls. 1 - 2

Holotype, dissected male, on slide, INPA-CR 471. Locality: Pará, Curuá-Una Reservoir, 02° 48'38"S and 54° 18'55"W. Allotype, female, on slide, INPA-CR 472. Locality: As in holotype. Paratypes, 1 male and 1 female, in formaline, INPA-CR 473a - b. Locality: As in holotype.

Aspinus acicularis BRANDORFF, 1973a: 210, pls. 5 - 6

Lectotype, male, on slide, in poor condition, INPA-CR 037. Locality: Pará, lago Grande Curuay (a várzea lake on the left bank of the rio Tapajós).
Paralectotype, female, on slide, in reasonable condition, INPA-CR 038. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984).

"Diaptomus" linus BRANDORFF, 1973a: 208, pls. 3 - 4

Lectotype, male, on slide, in poor condition, INPA-CR 035. Locality: Amazonas, lago do Castanho (a várzea lake on the right bank of the rio Solimões).
Paralectotype, female, on slide, in poor condition, INPA-CR 036. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984).

"Diaptomus" negrensis ANDRADE & BRANDORFF, 1975: 97, figs. 1 - 2

Lectotype, male, on slide, in reasonable condition, INPA-CR 003. Locality: Amazonas, lago Estreito (on the left bank of the lower rio Negro).
Paralectotype, female, on slide, in reasonable condition, INPA-CR 004. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984). Visible on the slide of the male lectotype are a male in dorsal view and the right antenna. The fifth leg, figured in fig. 2a, c in ANDRADE & BRANDORFF, 1975: 100, is not visible on this slide. Visible on the slide of the female paralectotype is only the dissected female in dorsal view.

"Diaptomus" ohlei BRANDORFF, 1978: 296, figs. 1 - 12

Lectotype, male, on slide, in reasonable condition, INPA-CR 005. Locality: Amazonas, lago do Castanho.
Paralectotype, 2 females, on slide, both in poor condition, INPA-CR 006 and 007. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984).

Notodiaptomus kieferi BRANDORFF, 1973a: 206, pls. 1 - 2

Lectotype, male, on slide, in very poor condition, INPA-CR 033. Locality: Amazonas, lago Catalão (a várzea lake on the left bank of the rio Solimões, near Manaus).
Paralectotype, female, on slide, in very poor condition, INPA-CR 034. Locality: As in lectotype.
Remarks: Lectotype and paralectotypes were designated by HARDY et al. (1984).

Notodiaptomus paraensis DUSSART & ROBERTSON, 1984: 389, figs. 1 - 3

Holotype, male, on slide, INPA-CR 068. Locality: Pará, rio Curuá-Una, 02° 48'38"S and 54° 18'55"W (in the reservoir of the Curuá-Una hydroelectric dam).
Allotype, female, on slide, INPA-CR 069. Locality: As in holotype.
Paratypes, 2 males, in formaline, INPA-CR 474. Locality: As in holotype.
Remarks: Other paratypes are deposited in the Muséum National d'Histoire Naturelle (Paris).

Rhacodiaptomus calatus BRANDORFF, 1973b: 345, pl. 4, fig. 2; pl. 5, fig. 1

Lectotype, male, on slide, in poor condition, INPA-CR 002. Locality: Amazonas, lago Calado (a várzea lake on the left bank of the rio Solimões, near Manacapuru).
Paralectotype, female, on slide, in poor condition, INPA-CR 001. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984).

Rhacodiaptomus retroreflexus BRANDORFF, 1973b: 348, pl. 5, fig. 2; pl. 6, fig. 1

Lectotype, male, on slide, in very poor condition, INPA-CR 039. Locality: Amazonas, lago do Janauari (a lake on the right bank of the lower rio Negro, near Manaus).
Paralectotype, female, on slide, in very poor condition, INPA-CR 040. Locality: As in lectotype.
Remarks: Lectotype and paralectotype were designated by HARDY et al. (1984).

Order Cyclopoida
Family Lernaecidae

Perulernaea gamitanae THATCHER & PAREDES, 1985a: 170, figs. 1 - 14

Holotype, female, on slide, INPA-CR 196. Locality: Peru, rio Marañon, near Iquitos (host: *Colossoma macropomum* (CUVIER); site: nasal fossae).
Remarks: The two paratypes, both females, are deposited in the Universidad Nacional Agraria (Lima, Peru) and the University of Nebraska State Museum (Lincoln, USA).

Order Poecilostomatoida
Family Amazonicopeidae

Amazonicopeus elongatus THATCHER, 1986: 51, figs. 1 - 15

Holotype, female, on slide, INPA-CR 449. Locality: Amazonas, rio Amazonas, near Manaus (host: *Plagioscion squamosissimus* (HECKEL); site: gills).
Paratypes, 9 females, on slides, INPA-CR 450a - i. Locality: As in holotype.
Remarks: Paratypes, 7 females, on slides, MZUSP 8173A - G.

Acusicola lycengraulidis THATCHER & BOEGER, 1983c: 943, figs. 1 - 11

Holotype, female, on slide, INPA-CR 052. Locality: Pará, rio Tocantins (host: *Lycengraulis grossidens* CUVIER; site: gill filaments).
Paratypes, 4 females, on slide, INPA-CR 053a - d. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 335; paratypes, 4 females, on slides, MZUSP 8166A - D; paratype, female, on slide, HWML 22804.

Acusicola pellowidii THATCHER & BOEGER, 1983d: 274, figs. 1 - 13

Holotype, female, on slide, INPA-CR 054. Locality: Amazonas, rio Amazonas, near Manaus (host: *Pellona castelnaeana* (VALENCIENNES); site: gill filaments).
Paratypes, 7 females, on slides, INPA-CR 055a - g. Locality: As in holotype.
Remarks: In the paper with the original description of this species, the number (PA-238-1) given to the holotype refers to the register in the INPA's Ichthyopathology Laboratory collection.
Paratype, female, on slide, BMNH 1984. 336; paratypes, 6 females, on slides, MZUSP 8167A - F; paratype, female, on slide, NMCC 1985-0118. Voucher, 1 vial, HWML 22806.

Acusicola tucunarensis THATCHER 1984a: 182, figs. 1 - 11

Holotype, female, on slide, INPA-CR 049. Locality: Amazonas, Manaus (host: *Cichla ocellaris* SCHNEIDER; site: gill filaments).
Paratypes, 4 females, on slides, INPA-CR 050a - d. Locality: As in holotype.
Remarks: Paratypes, 4 females, on slides, MZUSP 8165A - D; paratype, female, on slide, NMCC 1985-0119.

Amplexibranchius bryconis THATCHER & PAREDES, 1985b: 206, figs. 1 - 10, 17

Holotype, female, on slide, INPA-CR 197. Locality: Peru, rio Marañón, near Iquitos (host: *Brycon cephalus* (GÜNTHER); site: gill filaments).
Paratypes, 8 females, on slides, INPA-CR 198a - h. Locality: As in holotype.
Remarks: Paratypes, 3 females, on slides, MZUSP 8172A - C.

Brasergasilus anodus THATCHER & BOEGER, 1983a: 200, figs. 10 - 18

Holotype, female, on slide, INPA-CR 045. Locality: Pará, rio Tocantins (host: *Anodus elongatus* SPIX; site: gill filaments).
Paratypes, 9 females, on slides, INPA-CR 046a - i. Locality: As in holotype.
Remarks: Paratypes, 8 females, on slides, MZUSP 8164A - H. Voucher, female, on slide, HWML 22808.

Brasergasilus jaraquensis THATCHER & BOEGER, 1983a: 197, figs. 1 - 9

Holotype, female, on slide, INPA-CR 043. Locality: Amazonas, Manaus (host: *Semaprochilodus insignis* (SCHOMBURGK); site: gill filaments).
Paratypes, 7 females, on slides, INPA-CR 044a - g. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 325; paratypes, 6 females, on slides, MZUSP 8162A - F; paratype, female, on slide, NMCC 1985-0120. Voucher, female, on slide, HWML 22807.

Brasergasilus oranus THATCHER & BOEGER, 1984d: 395, figs. 1 - 13

Holotype, female, on slide, INPA-CR 047. Locality: Amazonas, rio Amazonas, near Manaus (host: *Anodus elongatus* SPIX; site: gill filaments and gill rakers).
Paratypes, 7 females, on slides, INPA-CR 048a - g. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 322; paratypes, 7 females, on slides, MZUSP 8163A - G; paratype, female, on slide, NMCC 1987-0368.

Ergasilus bryconis THATCHER, 1981a: 439, figs. 1 - 13

Holotype, female, on slide, INPA-CR 011. Locality: Amazonas, Manaus (host: *Brycon melanopterus* (COPE); site: gill filaments).
Paratypes, 13 females, on slides, INPA-CR 012a - m; paratypes, 5 females, on slides, INPA-CR 013a - e. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 326; paratypes, 7 females, on slides, MZUSP 8155A - G; paratype, female, on slide, USNM 204984. Voucher, female, on slide, NMCC 1985. 0121.
VARELLA (1985) described the larval development and the male of this species. Three male specimens, on slides, have been deposited under the numbers INPA-CR 446 and INPA-CR 447a - b. Eleven larval specimens (Nauplius I to III, Copepodite I to V), on slides, have been deposited under the number INPA-CR 461a - k.

Ergasilus callophrys THATCHER & BOEGER, 1984a: 326, figs. 1 - 10

Holotype, female, on slide, INPA-CR 041. Locality: Amazonas, rio Amazonas, near Manaus (host: *Callophrys macropterus* (LICHTENSTEIN); site: gill filaments).
Paratypes, 7 females, on slides, INPA-CR 042a - g. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 337; paratype, female, on slide, HWML 22800; paratypes, 2 females, on slides, MZUSP 8161A - B; paratype, female, on slide, NMCC 1987-0369; paratype, female, on slide, USNM 204987.

In the paper with the original description of this species, the numbers (PA-237-1; PA-237-2 to 7) given, respectively, to the holotype and INPA's paratypes refers to the register in the INPA Ichthyopathology Laboratory collection. Also, the numbers (3016 and 3017) given to the MZUSP's paratypes were incorrect.

Ergasilus colomesus THATCHER & BOEGER, 1983b: 372, figs. 1 - 15

Holotype, female, on slide, INPA-CR 020. Locality: Amazonas, rio Amazonas, near Manaus (host: *Colomesus asellus* (MÜLLER & TROSCHELL); site: gill filaments).
Paratypes, 6 females, on slides, INPA-CR 021a - f. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 330; paratype, female, on slide, HWML 22801; paratypes, 4 females, on slides, MZUSP 8157A - D; paratype, female, on slide, NMCC 1985-0122. Paratypes are also deposited in the National Museum of Natural History, Smithsonian Institution (Washington, D. C.).

Ergasilus holobryconis MALTA & VARELLA, 1986b: 49

Holotype, female, on slide, INPA-CR 381. Locality: Rondônia, rio Ji-Paraná, near Ji-Paraná (host: *Holobrycon pesu* (MÜLLER & TROSCHELL); site: gill filaments).

Paratypes, 8 females, on slides, INPA-CR 382a - h. Locality: As in holotype.
Remarks: Paratype, female, on slide, MZUSP 7011.

MALTA & VARELLA (1986a) introduced this species at the XII Brazilian Congress of Zoology, in Cuiabá, MT. The authors provide a complete description, along with illustrations, of *Ergasilus holobryconis* in a later paper (MALTA & VARELLA 1986b).

Ergasilus hydrolycus THATCHER, BOEGER & ROBERTSON, 1984: 322, figs. 1 - 11

Holotype, female, on slide, INPA-CR 022. Locality: Amazonas, rio Solimões, ilha da Marchantaria, near Manaus (host: *Hydrolycus scomberoides* (CUVIER); site: gill filaments).
Paratypes, 7 females, on slides, INPA-CR 023a - g. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 329; paratype, female, on slide, HWML 22802; paratypes, 7 females, on slides, MZUSP 8158A - G; paratypes, 2 females, on slides, NMCC 1987-0370.

In the paper with the original description of this species, the number (PA-240-1) given to the holotype refers to the INPA Ichthyopathology Laboratory collection.

Ergasilus jaraquensis THATCHER & ROBERTSON, 1982: 515, figs. 1 - 11

Holotype, female, on slide, INPA-CR 018. Locality: Amazonas, Manaus (host: *Semaprochilodus insignis* (SCHOMBURGK); site: gill filaments).
Paratypes, 5 females, on slides, INPA-CR 019a - e. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984. 324; paratypes, 2 females, on slides, MZUSP 8159A - B; paratype, female, on slide, USNM 204986. Voucher, female, on slide, NMCC 1985-0123.

Ergasilus leporinidis THATCHER, 1981b: 723, figs. 1 - 11

Holotype, female, on slide, INPA-CR 014. Locality: Amazonas, Manaus (host: *Leporinus fasciatus* (BLOCH); site: gill filaments).
Paratypes, 5 females, on slides, INPA-CR 015a - e. Locality: As in holotype.
Remarks: Paratypes, 2 females, on slides, MZUSP 8156A - B; paratype, female, on slide, USNM 204985. Voucher, female, on slide, NMCC 1985-0124.

Ergasilus pitalicus THATCHER, 1984b: 495, figs. 1 - 14

Paratypes, 15 females, on slides, INPA-CR 024a - o. Locality: Colombia, Departamento de Valle, rio Pital (host: *Cichlasoma* sp.; site: gill filaments).
Remarks: Paratype, female, on slide, BMNH 1984. 331; paratype, female, on slide, HWML 22803; paratypes, 13 females, on slides, MZUSP 8160A - M.

The holotype, a female, is deposited in the National Museum of Natural History, Smithsonian Institution (Washington, D.C.) (USNM 204997). This museum also has some paratypes of this species.

Family Vaigamidae

Gamidactylus jaraquensis THATCHER & BOEGER, 1984b: 422, figs. 1 - 10

Holotype, female, on slide, INPA-CR 062. Locality: Amazonas, rio Amazonas, near Manaus (host: *Semaprochilodus insignis* (SCHOMBURGK); site: nasal fossae).
Paratypes, 4 females, on slides, INPA-CR 063a - d. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984-334; paratype, female, on slide, HWML 22799; paratypes, 2 females, on slides, MZUSP 8170A - B; Paratype, female, on slide, NMCC 1987-0371.

Gamispatulus schizodontis THATCHER & BOEGER, 1984e: 120, figs. 1 - 11

Holotype, female, on slide, INPA-CR 066. Locality: Amazonas, rio Solimões, ilha da Marchantaria, near Manaus (host: *Schizodon fasciatus* AGASSIZ; site: nasal fossae).
Paratypes, 8 females, on slides, INPA-CR 067a - h. Locality: As in holotype.
Remarks: Paratypes, 7 females, on slides, MZUSP 8174A - G.

Gamispinus diabolicus THATCHER & BOEGER, 1984c: 506, figs. 1 - 10

Holotype, female, on slide, INPA-CR 064. Locality: Amazonas, rio Amazonas, near Manaus (host: *Ageneiosus brevifilis* VALENCIENNES; site: nasal fossae).
Paratypes, 7 females, on slides, INPA-CR 065a - g. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984-323; paratypes, 7 females, on slides, MZUSP 8171A - G; paratype, female, on slides, NMCC 1987-0372. Voucher, 1 vial, HWML 22810.

Vaigamus retrobarbatus THATCHER & ROBERTSON, 1984: 718, figs. 1 - 22

Holotype, female, on slide, INPA-CR 056. Locality: Amazonas, rio Solimões, ilha da Marchantaria, near Manaus (from plankton samples).
Allotype, male, on slide, INPA-CR 057. Locality: As in holotype.
Paratypes, 5 females and 6 males, on slides, INPA-CR 058a - k. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984-332; paratype, male, on slide, BMNH 1984-333; paratype, female, on slide, HWML 22795; paratype, male, on slide, HWML 22796; paratypes, 5 females and 5 males, on slides, MZUSP 8168A - J; paratype, female, on slide, NMCC 1984-43; paratype, male, on slide, NMCC 1984-44.

In the paper with the original description of this species, the numbers (PA-238-1 and PA-238-2) given, respectively, to the holotype and the allotype, refer to the register in the INPA Ichthyopathology Laboratory collection.

Vaigamus spinicephalus THATCHER & ROBERTSON, 1984: 724, figs. 23 - 45

Holotype, female, on slide, INPA-CR 059. Locality: Pará, rio Tocantins (from plankton samples).
Allotype, male, on slide, INPA-CR 060. Locality: As in holotype.
Paratypes, 4 females and 2 males, INPA-CR 061a - f. Locality: As in holotype.
Remarks: Paratype, female, on slide, BMNH 1984-327; paratype, male, on slide, BMNH 1984-328; paratype, female, on slide, HWML 22797; paratype, male, on slide, HWML 22798; paratypes, 3 females and 1 male, on slides, MZUSP 8169A - D; paratype, female, on slide, NMCC 1985-45; paratype, male, on slide, NMCC 1985-46.

In the paper with the original description of this species, the numbers (PA-239-1 and PA-239-2) given, respectively, to the holotype and the allotype, refer to the register in the INPA Ichthyopathology Laboratory collection.

Subclass Branchiura
Order Arguloida
Family Argulidae

Argulus amazonicus MALTA & SANTOS SILVA, 1986: 487, figs. 1 - 10

Holotype, female, on slide, INPA-CR 153. Locality: Amazonas, lago Janauacá (a várzea lake on the right bank of rio Solimões), near Manaus (host: *Cichla ocellaris* SCHNEIDER; site: gill chamber). Paratype, female, on slide, INPA-CR 154; paratypes, 2 females, INPA-CR 155 and 156. Locality: As in holotype.

Remarks: Paratype, female, on slide, MZUSP 7006.

Class Malacostraca
Order Mysidacea
Family Mysidae

Parvimysis pisciscibus HENDERSON & BAMBER, 1983: 139, figs. 1 - 3

Holotype, female, INPA-CR 113. Locality: Amazonas, lower igarapé Tarumãzinho (= Tarumã-Mirim), near Manaus.

Allotype, male, INPA-CR 114. Locality: As in holotype; however, the specimen was collected from the gut content of a fish.

Remarks: The paratypes (3 females) were said to have been deposited in the Instituto Nacional de Pesquisas da Amazônia (HENDERSON & BAMBER 1983: 139). In fact, these paratypes were deposited in the British Museum (Natural History) BMNH 1983.541.3.

Order Isopoda
Family Philosciidae

Ischioscia irmleri SCHMALFUSS, 1980: 136, figs. 27 - 31

Holotype, male, INPA-CR 017. Locality: Amazonas, rio Solimões, ilha do Curari, near Manaus.

Order Decapoda
Family Palaemonidae

Macrobrachium ferreirai KENSLEY & WALKER, 1982: 4, figs. 5 - 6, 12b

Holotype, male, INPA-CR 161. Locality: Mato Grosso, igarapé without a name, near Castanhal, Aripuanã.

Paratypes, 2 females (1 ovigerous), INPA-CR 162. Locality: Amazonas, igarapé do V-8, Manaus.

Paratypes, 1 male and 3 juveniles, INPA-CR 163. Locality: Amazonas, igarapé Tarumãzinho, near Manaus.

Remarks: Paratypes are also deposited in the National Museum of Natural History, Smithsonian Institution (1 male, USNM 184883; 1 male and 4 juveniles, USNM 184884).

The holotype and one of the paratypes (USNM 184883) were collected in a "igarapé" (stream) in the region of Castanhal, near Aripuanã, state of Mato Grosso. The name of the collecting area of the two females paratypes (INPA-CR 162) is "igarapé do V-8", a small stream within the urban area of Manaus (nowadays, this is a very disturbed area).

When Dr. B. Kensley was at the INPA, examining the shrimp collections of Dr. I. Walker, Dr. M. Goulding and M. Sc. E. Ferreira he left, in some vials, a small label with his initials followed by a number. According to M. Sc. E. FERREIRA (personal communication), this corresponds to the number of specimens which were taken by Dr. Kensley for further studies. We found two lots of *M. ferreirai* bearing such labels: INPA-CR 088, with 2 immature specimens from the same holotype locality; and INPA-CR 089, with 6 immature specimens from "igarapé da Aeronáutica", Tefé, state of Amazonas (the same locality as USNM's 184884 paratypes; "iguapi", as written in KENSLEY & WALKER, 1982: 4, is a misspelling of "igarapé").

Macrobrachium inpa KENSLEY & WALKER, 1982: 4, figs. 7 - 9, 12c

Holotype, male, INPA-CR 164. Locality: Amazonas, igarapé da Cachoeira (lower rio Negro basin).

Paratypes, 1 male and 4 females (3 ovigerous), INPA-CR 165. Locality: Amazonas, igarapé Beija-Flor (lower rio Negro basin). Paratype, male, INPA-CR 292. Locality: Amazonas, igarapé no km 21 da rodovia AM 10, 2 km from the Estação de Piscicultura.

Remarks: One of the paratypes (male, from "Reserva da Campina, rodovia Manaus-Caracará, km 60"), though designated as part of INPA's collection (KENSLEY & WALKER 1982: 6), was donated to the Zoologia da Universidade de São Paulo (MZUSP 7014). Other paratypes are deposited in the National Museum of Natural History, Smithsonian Institution.

Pseudopalaemon chryseus KENSLEY & WALKER, 1982: 16, figs. 18 - 19

Holotype, male, INPA-CR 166. Locality: Amazonas, igarapé Tarumãzinho, near Manaus.

Paratype, female, INPA-CR 167. Locality: Amazonas, rio Negro, Arquipélago de Anavilhanas, lago Samaúma.

Remarks: Paratypes are also deposited in the National Museum of Natural History, Smithsonian Institution (2 males, 4 females, 6 juveniles, USNM 189044; 2 ovigerous females, USNM 184887; 3 females (2 ovigerous), USNM 184888, 1 male and 3 females, USNM 184889).

Pseudopalaemon gouldingi KENSLEY & WALKER, 1982: 18, figs. 20 - 21

Holotype, male, INPA-CR 168. Locality: Amazonas, rio Negro, lago de Cumuru.

Paratype, ovigerous female, INPA-CR 169. Locality: Amazonas, rio Cuieiras. Paratypes, 1 male, 1 female and 508 juveniles, INPA-CR 295. Locality: Amazonas, rio Negro, ilha de Cumuru, lago da ilha. Paratype, male, INPA-CR 305. Locality: Amazonas, paraná do Jacaré. Paratype, male, INPA-CR 386. Locality: Amazonas, rio Cuieiras. Paratypes, 1 male, 3 females, 120 juveniles, INPA-CR 387. Locality: Amazonas, rio Negro, Urubaxi mouth.

Remarks: One lot of paratypes (118 juveniles, from rio Urubaxi, close to river mouth), though designated as part of the INPA's collection (KENSLEY & WALKER 1982: 19), was donated to Museu de Zoologia da Universidade de São Paulo (MZUSP 7013). Other paratypes are deposited in the National Museum of Natural History, Smithsonian Institution.

Holotype, immature specimen, INPA-CR 170. Locality: Amazonas, rio Maraujá (upper rio Negro basin).

Paratypes, 10 immature specimens, INPA-CR 171. Locality: As in holotype.

Remarks: Paratypes are also deposited in the National Museum of Natural History, Smithsonian Institution (10 plus 296 immature specimens, USNM 184892).

The correct spelling of the type-locality name is "Rio Maraujá" (not "Rio Marania", as in KENSLEY & WALKER (1982: 20).

Family Pseudothelphusidae

Brasiliothelphusa tapajoensis MAGALHÃES & TÜRKAY, 1986: 372, figs. 1 - 2

Paratypes, 1 male and 1 female, INPA-CR 150. Locality: Pará, rio Tapajós, Monte Cristo.

Remarks: The holotype is in the Museu de Zoologia da Universidade de São Paulo (MZUSP 6550).

Paratypes are in the Forschungsinstitut Senckenberg (1 male and 1 female, SMF 12499; 1 male, SMF 4291) and the Museu de Zoologia da Universidade de São Paulo (2 males and 2 females, MZUSP 6378).

MAGALHÃES & TÜRKAY (1986) named this species as *Brasiliothelphusa tapajoense*. However, the ending *-ense* must be changed to *-ensis* since the specific name is a latin adjective and must agree, in gender, with the generic name, which is feminine (Article 31 (b) ICZN, 1985). Thus, *B. tapajoense* becomes *B. tapajoensis*.

Kingsleya ytupora MAGALHÃES, 1986: 617, figs. 11 - 13, 30 - 31

Holotype, male, INPA-CR 369. Locality: Pará, desembocadura do igarapé Tramalhethinho (tributary of the left bank of the rio Trombetas).

Paratypes, 1 male and 1 female, INPA-CR 370. Locality: As in holotype. Paratypes, 2 males and 2 females, INPA-CR 371. Locality: Pará, rio Trombetas, Cachoeira Porteira. Paratypes, 2 males and 2 females, INPA-CR 372. Locality: Pará, rio Anamú, cachoeira Santa Rosa. Paratype, male, INPA-CR 373. Locality: Amazonas, rio Uatumã. Paratypes, 7 males and 3 females, INPA-CR 374. Locality: Pará, rio Curuá-Una.

Remarks: Paratypes are also deposited in the Forschungsinstitut Senckenberg (1 male and 2 females, SMF 13697; 1 male and 1 female, SMF 13669) and the Museu de Zoologia da Universidade de São Paulo (1 male and 2 females, MZUSP 7009; 1 male and 1 female, MZUSP 7010).

General Remarks

Some comments are made below on the material and on the names of localities given by some authors who published on crustaceans from the Amazon Region:

Class Maxillopoda
Subclass Copepoda
Order Harpacticoida
Family Parastenocarididae

Parastenocaris bolbodes KIEFER, 1968: 257, figs. 1 - 8

Paratype, female, on slide. This specimen was not located.

Remarks: KIEFER (1967a, 1967b, 1968) described seven new species of Harpacticoida from the Amazon Region and stated that one paratype of *Parastenocaris bolbodes* was deposited at the INPA (KIEFER 1968: 258). In spite of a previous citation (RAFAEL et al. 1983), which includes this specimen in INPA's invertebrate collection, we were not able to find this slide.

The type material of *Parastenocaris dactyloides* and *Parastenocaris drepanephora*, according to KIEFER (1967b: 133), was deposited in his own collection and at INPA. However, this material, apparently, did not arrive at INPA. Dr. Friedrich Kiefer died on the 18th of April 1985 and, according to the copepodologist's newsletter "Monoculus" (no. 11, October, 1985), his collection of specimens was deposited in the Landessammlungen für Naturkunde, Karlsruhe, West Germany. KIEFER (1967a) also described four other species from the Amazon Region (*Allophyllognathopus brasiliensis*, *Elaphoidella negroensis*, *E. siolii* and *E. paraplesia*) which may also be deposited at the Landessammlung für Naturkunde.

Class Malacostraca
Order Isopoda
Family Philosciidae

Prosekia tarumae CASTRO, 1984: 441, figs. 1 - 12

Remarks: CASTRO (1984) described this species from the Amazon Region and stated that the type material was deposited in both INPA's collection and Museu Nacional, Rio de Janeiro. However, the material assigned to the INPA was still in Rio de Janeiro at the time of the conclusion of this manuscript, but should be sent back to Manaus soon (Dr. Alceu L. de Castro, personal communication).

Order Decapoda
Family Palaemonidae

Macrobrachium amazonicum (HELLER): In: KENSLEY & WALKER's (1982: 4) list of material examined, "Rio Toca Tana" is a misspelling of "Rio Tocantins".

Palaemonetes carteri (GORDON): In: KENSLEY & WALKER's (1982: 11) list of material examined, "Rio Ariravá" is a misspelling of "Rio Arirará".

Palaemonetes ivonicus HOLTHUIS: We found two vials with specimens of *P. ivonicus* from which Dr. Kensley apparently took twenty, and eight specimens, respectively. These lots are: INPA-CR 128 (igarapé da Aeronáutica, Tefé, state of Amazonas, 21. iii. 1973, J. O. Chaves coll., 38 spec.) and INPA-CR 239 (rio Madeira, igarapé Aranaguara, state of Rondônia, 26. viii. 1976, 16 spec.). In KENSLEY & WALKER (1982: 11), the specimens taken by Dr. Kensley were published as *Palaemonetes carteri*, but probably are *P. ivonicus*. In KENSLEY & WALKER's (1982: 11) list of material examined, "Ananaguara" is a misspelling of "Ananaguara".

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Addendum

Class Maxillopoda
Subclass Copepoda
Order Harpacticoida

The confirmation that the specimens described by KIEFER are deposited at the Landessammlung für Naturkunde, in Karlsruhe (F.R.G.), arrived when the galley-proofs were ready. Therefore, we give these informations below:

Allophyllognathopus brasiliensis KIEFER, 1967, on slides, 7457 and 7458.

Elaphoidella negroensis KIEFER, 1967, on slides, 7455 and 7456.

Elaphoidella paraplesia KIEFER, 1967, on slides, 7462 and 7463.

Elaphoidella siolii KIEFER, 1967, on slides, 7459 to 7461.

Parastenocaris bolbodes KIEFER, 1968, on slides, 7414 and 7416.

Parastenocaris dactyloides KIEFER, 1967, on slides, 7464 to 7469, 7915 and 7917.

Parastenocaris drepanophora KIEFER, 1967, on slides, 7470 to 7477.